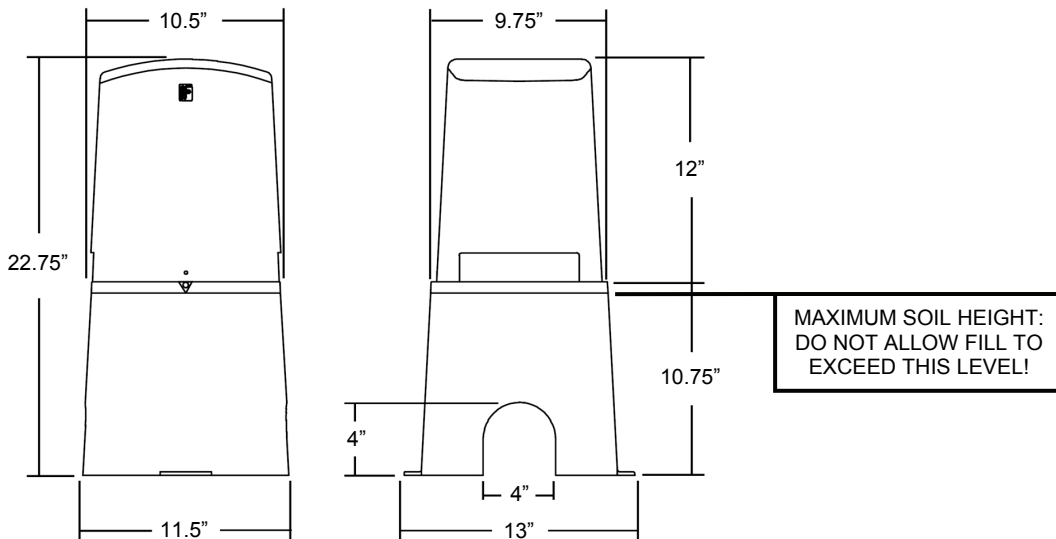




2004-AS™

INSTALLATION MANUAL

AUTO SYNCHRONIZED ILLUMINATORS



SPECIFICATIONS

CONSTRUCTION

Case: High Impact Polycarbonate
 Ventilation: 110 cu ft/min air volume
 Acoustic rating: 50dB(A)
 Weight: 13 lbs.

WARNING: DO NOT INSTALL WITHIN 1.5M (5 FT.) OF A POOL, SPA, OR HOT TUB.
ADVERTISSEMENT: NE PAS INSTALLER A MOINS DE 1,5M D'UNE PISCINE OU D'UNE CUVE DE RELAXATION.

ELECTRICAL

Voltage required: 120VAC 60Hz
 Power consumption: 250 Watts max
 Current usage: 2.0 amps

LAMP

Type: Quartz-halogen, proprietary design
 Lamp life: 400-700 hrs average

Listing
 UL file number E220601



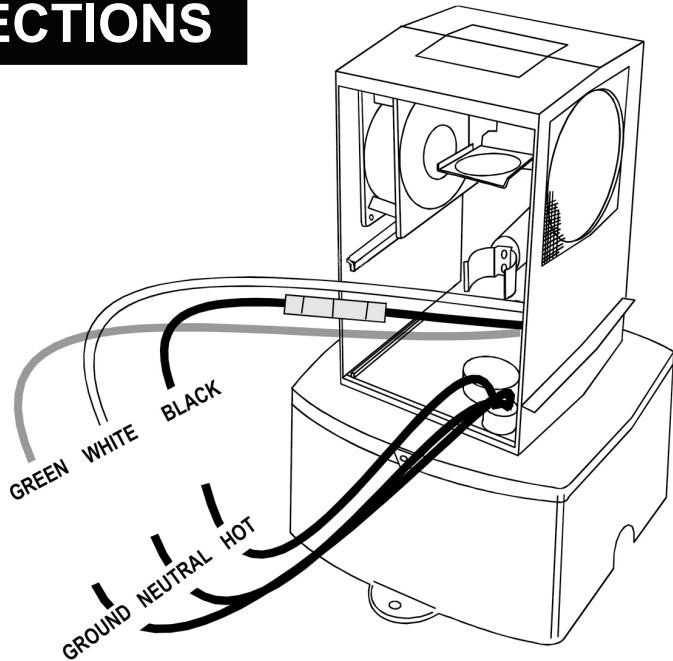
ELECTRICAL CONNECTIONS

2004-AS

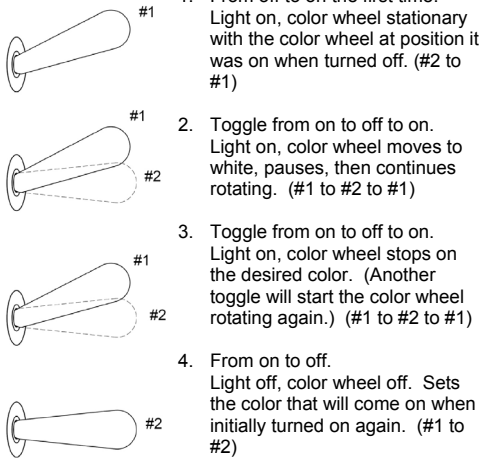
120V 60Hz ONLY

**IF A SELF-CONTAINED
REMOTE IS DESIRED, ORDER
THE OPTIONAL RM1**

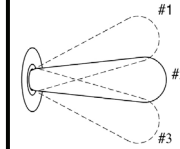
SEE BELOW



CONTROL SEQUENCE



NOTES:



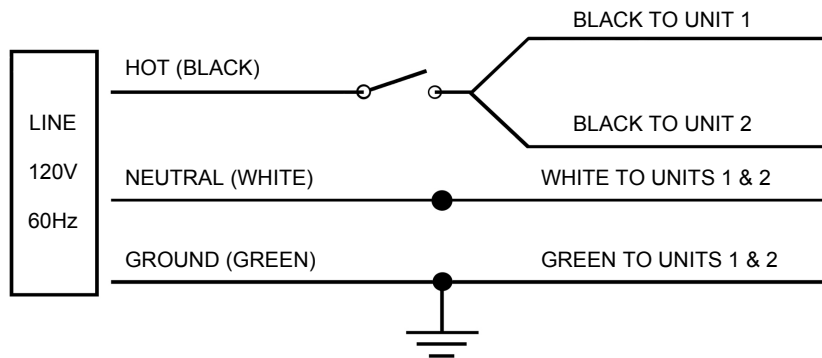
1. FOR EXTERNAL AUTO CONTROL YOU MUST LEAVE TOGGLE SWITCH IN THE "ON POSITION."
2. IF USING RM1 WIRELESS REMOTE CONTROL TOGGLE SWITCH MUST BE ON THE BOTTOM POSITION (#3).

Wireless Remote Info:

The use of an RM1, Wireless Remote Control, is intended for use in a 2004-AS ONLY when used as a standalone unit. It is NOT intended for use for synchronization of multiple units.

EXTERNAL SWITCH CONNECTION

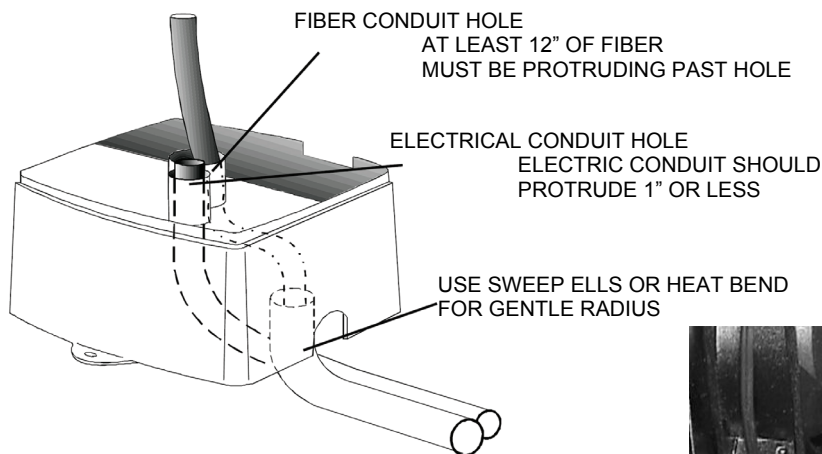
FOR SYNCHRONIZING 2 OR MORE UNITS
(2004-AS OR FX AS LIGHTS)



INSTALLATION GUIDELINES

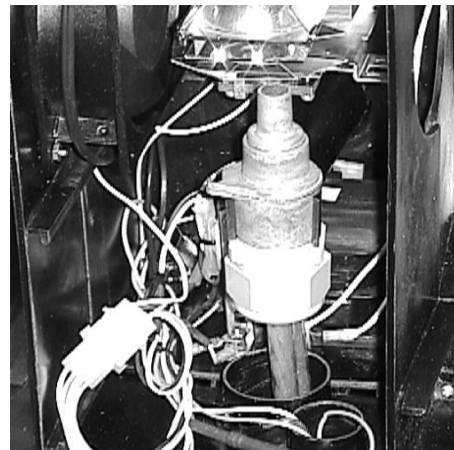
Refer to the diagram on the front of this manual for the following procedures.

- 1) See our general installation manual for fiber and conduit installation in the pool. This manual covers the 2004-AS series illuminator installation only.
- 2) Cut the fiber conduits so they will enter the installation base approximately halfway. Cut the electrical conduit so it will protrude past the conduit hole 1" or less (FIG A). Pull all fiber optic cables at least 12" through the top of the installation base.
- 3) Follow the port assembly procedures on the back of this manual.
- 4) Place the chassis on the installation base. Secure the illuminator with the two screws supplied. Snap the port into the clip on the chassis. Make sure it seats firmly into the clip (FIG B).
- 5) Make the electric connections as shown on the previous page. Make sure no wires interfere with the cooling fan or color wheel.
- 6) a) If installing in the ground:
Backfill halfway up the installation base. Allow ample height for top soil and landscaping. Do not allow the vents on the bottom of the illuminator to be blocked. This will cause the illuminator to overheat and shut off.
b) If surface mounting:
Use proper securing screws for the surface type you are attaching to, using the 2 holes provided on the base. Example: For concrete, use proper concrete screws. For wood surface, use proper wood screws.



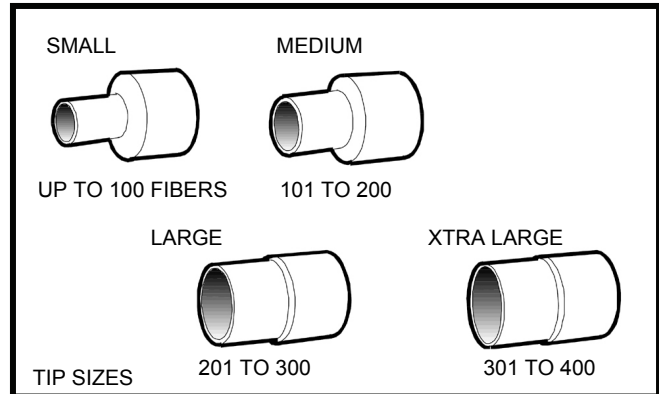
APPROVED CONDUITS FOR USE WITH FIBER OPTIC CABLES

- White PVC conduit/pipe SCH 40 or SCH 80
- Gray PVC conduit/pipe SCH 40 or SCH 80
- Flexible PVC pipe
- Black poly pipe
- Any other suitable conduit



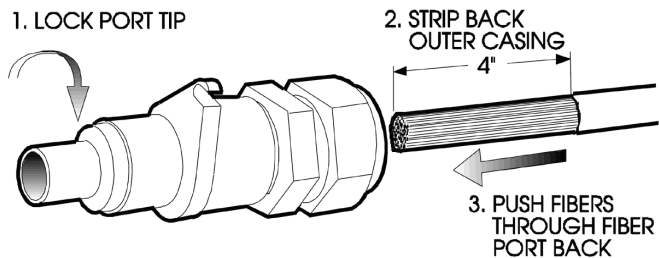
PORT ASSEMBLY/FIBER TERMINATION

A) Insure that the total fiber count of all fiber tubings is 400 or less. If you have more than 400 individual fibers, you will need a second illuminator. The maximum capacity of the System 2000™ series port is 400 fibers (optional CCS-450 for expanding fiber capacity to 450 fibers sold separately).

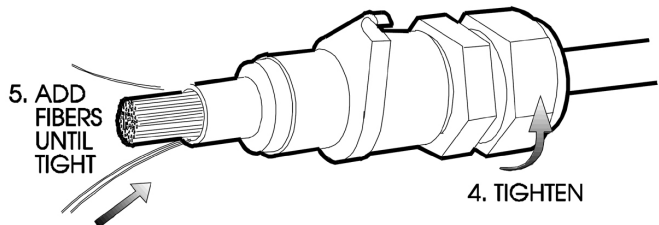


B) Insert the proper size tip into the port and twist with pliers to lock (fig. 1).

C) Strip back all fiber casings no less than 4 inches (fig. 2). Take care not to nick the fibers.



D) Insert the bare fibers into the port so ALL fibers protrude past the port tip (fig. 3). Tighten the port compression nut down on the fiber casing (fig. 4).



E) **IMPORTANT:** If the port tip is not completely full, insert scrap individual fibers into the tip until it is completely full (fig. 5). This will keep the lit fibers perpendicular to the lamp, and prevent the fibers from overheating.

F) Plug in the hot knife (p/n FS-118) and allow it to heat up. Apply firm downward pressure on the fibers, with the blade touching the port tip at a slight angle (fig. 6.) Do not saw at the fibers. Allow the heat of the knife to slowly trim the fibers. Ease the pressure as the knife almost completes the cut. Unplug the hot knife and place it in a safe place to cool.

